#15/A

SEQUENCE LISTING

<110> Mitchell, Lloyd G.
Garcia-Blanco, Mariano A.
Puttaraju, Madaiah
Mansfield, Gary S.

<120> METHODS AND COMPOSITIONS FOR USE IN SPLICEOSOME MEDIATED RNA TRANS-SPLICING

<130> A31304-B-A-B 072874.0135

<140> 09/756,096
<141> 2001-01-08

<150> 09/158,863
<151> 1998-09-23

<150> 09/133,717
<151> 1998-08-13

A1

<150> 09/087,233
<151> 1998-05-28

<150> 08/766,354
<151> 1996-12-13

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<210> 21
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Escherichia coli lacZ gene

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<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Oligonucleotide primer complimentary to the
Escherichia coli lacZ gene

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<213> Artificial Sequence

<220>
<223> Oligonucleotide primer complimentary to the
Escherichia coli lacZ gene

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<210> 32
<211> 47
<212> DNA
<213> Artificial Sequence

<220>
<223> Oligonucleotide primer complimentary to the
Escherichia coli lacZ gene

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<210> 33
<211> 37
<212> DNA
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<220>
<223> Oligonucleotide primer complimentary to the beta
HCG6 gene (accession #X00266)

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<210> 34
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<213> Artificial Sequence

<220>
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HCG6 gene (accession #X00266)

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ctgactgcag ggtaaccgga caaggacact gcttcacc 38

<210> 35
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<223> Oligonucleotide primer complimentary to the beta
HCG6 gene (accession #X00266)

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<210> 36
<211> 37
<212> DNA
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<220>
<223> Oligonucleotide primer complimentary to the beta
HCG6 gene (accession #X00266)

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<220>
<223> Oligonucleotide primer complimentary to the
Escherichia coli lacZ gene

<400> 37
ggctttcgct acctggagag ac 22

<210> 38
<211> 21
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<220>
<223> Oligonucleotide primer complimentary to the
Escherichia coli lacZ gene

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<210> 39
<211> 20
<212> DNA
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<220>
<223> Oligonucleotide primer complimentary to the
Escherichia coli lacZ gene

<400> 39
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<213> Homo sapien

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<210> 41
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<210> 42
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<212> DNA
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<400> 42
acctctgcag acttcacttc taatgatgat 30

<210> 43
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<212> DNA
<213> Homo sapien

<400> 43
acctgcggcc gcctaatgat gatgatgatg atgctcttct agttggcatg c 51

<210> 44
<211> 32
<212> DNA
<213> Homo sapien

<400> 44
gacctctcga gggatttggg gaattatttg ag 32

<210> 45
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<400> 45
ctgacctgcg gccgctacag tgttgaatgt ggtgc 35

<210> 46
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<400> 46
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<210> 47
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<400> 47
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<400> 51
gacctctcga gggatttggg gaattatttg ag 32

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<213> Homo sapien

<400> 52
aactagaagg cacagtcgag g 21

<210> 53
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> trans-spliced product containing Human chorionic gonadotropin gene 6 sequences and Corynebacterium diptheriae diptheria toxin A sequence

<400> 53
gagatgttcc agggcgtgat gatg 24

<210> 54
<211> 127
<212> RNA
<213> Artificial Sequence

<220>
<223> PTM intramolecular base paired stem

<221> misc_feature
<222> (57)...(70)
<223> Loop comprising a combination of 14 nucleotides according to specification

<400> 54

gcuagccugg gacaaggaca cugcuucacc cgguuaguag accacagccc ugagccnnnn 60
nnnnnnnnnn aucguuaacu aauaaacuac uaacugggug aacuucuguu uuuuucucga 120
gcugcag 127

<210> 55
<211> 127
<212> RNA
<213> Artificial Sequence

<220>
<223> PTM intramolecular base paired stem

<221> misc_feature
<222> (57)...(70)
<223> Loop comprising a combination of 14 nucleotides
according to specification

<400> 55
gcuagccugg gacaaggaca cugcuucacc cgguuaguag accacagccc ugagccnnnn 60
nnnnnnnnnn aucguuaacu aauaaacuac uaacugggug aacuucugua uuauucucga 120
gcugcag 127

<210> 56
<211> 127
<212> RNA
<213> Artificial Sequence

<220>
<223> PTM intramolecular base paired stem

<221> misc_feature
<222> (57)...(70)
<223> Loop comprising a combination of 14 nucleotides
according to specification

<400> 56
gcuagccugg gacaaggaca cugcuucacc cgguuaguag accacagccc ugagccnnnn 60
nnnnnnnnnn aucguuaacu aauaaacuac uaacugggug aaguucuguc cuugucucga 120
gcugcag 127

<210> 57
<211> 132
<212> DNA
<213> Artificial Sequence

<220>
<223> trans-spliced product containing Human chorionic
gonadotropin gene 6 sequences and Corynebacterium
diptheriae diptheria toxin A sequences

<400> 57
caggggacgc accaaggatg gagatgttcc agggcgctga tgatgttgtt gattcttctt 60
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tccattcaaa aa 132

<210> 58
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Artificial Sequence derived from Escherichia coli
lacZ gene

<400> 58
gaattcggta ccatgggg 18

<210> 59
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Artificial Sequence derived from Escherichia coli
lacZ gene

<400> 59
cgtttacagg taagaggatc ctccggaggg ccc 33

<210> 60
<211> 30
<212> DNA
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<220>
<223> Artificial Sequence derived from Escherichia coli
lacZ gene

<400> 60
tggtgtcaaa aataataagt taacaagctt 30

<210> 61
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> trans-spliced product containing Escherichia coli
lacZ gene sequences and Human chorionic
gonadotropin gene 6 exon 2 sequences

<400> 61
cagcagcccc tgtaaacggg gatac 25

<210> 62
<211> 286
<212> DNA
<213> Artificial Sequence

<220>
<223> trans-spliced product containing Escherichia coli
lacZ gene sequences

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agggcggctt cgtctaataa tgggactggg tggatcagtc gctgattaaa tatgatgaaa 180
acgggcaacc cgtggtcggc ttacggcggt gattttggcg atacgccgaa cgatcgccag 240
ttctgtatga acggtctggt ctttgccgac cgcacgccgc atccag 286

<210> 63
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<212> DNA
<213> Artificial Sequence

<220>
<223> trans-spliced product containing Escherichia coli
lacZ gene sequences

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gtaacagtct tggcggtttc gctaaatact ggcaggcgtt tcgtcagtat ccccgtttac 120
aggggctgct gctgttgctg ctgctgagca tgggcgggac atgggcatcc aaggagccac 180
ttcggccacg gtgccg 196

<210> 64
<211> 420
<212> DNA
<213> Artificial Sequence

<220>
<223> trans-spliced product comprising cystic fibrosis
transmembrane regulator-derived sequences and His
tag sequence

<400> 64
gctagcgttt aaacgggccg acccatcatt attaggtcat tatccgcgga acattattat 60
aacgttgctc gagtactaac tggaacctct tctttttttt cctgcagact tcacttctaa 120
tgatgattat gggagaactg gagccttcag agggtaaaat taagcacagt ggaagaattt 180
cattctgttc tcagttttcc tggattatgc ctggcaccat taaagaaaat atcatctttg 240

gcggccgcca ctgtgctgga tatctgcaga attccaccac actggactag tggatccgag 300
ctcggtacca aggttaagtt taaaccgctg atcagcctcg actgtgcctt ctagttgcca 360
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<210> 65
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Splice junction sequence

<400> 65
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<210> 66
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> C terminal residues from glutathione -S-
transferase

<400> 66
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1 5

<210> 67
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Artificial sequence comprising sequences derived
from Escherichia coli lacZ gene

<400> 67
ggagttgatc ccgtc 15

<210> 68
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Artificial sequence comprising sequences derived
from Escherichia coli lacZ gene

<400> 68
gcagtgtcct tgtgcggtta ccctgcaggg cggcttc 37

<210> 69
<211> 120
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<220>
<223> Binding domain of PTM

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tattaactca tttgattcaa aatatttaaa atacttcctg tttcatactc tgctatgcac 120

<210> 70
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Spacer sequence of PTM

<400> 70
aacattatta taacgttgct cgaa 24

<210> 71
<211> 47
<212> DNA
<213> Artificial Sequence

<220>
<223> Branch point, pyrimidine tract and acceptor splice
site of PTM

<400> 71
tactaactgg tacctcttct ttttttttg atatcctgca gggcggc 47

<210> 72
<211> 70
<212> DNA
<213> Artificial Sequence

<220>
<223> Donor site and spacer sequence of PTM

<400> 72
tgaacggtaa gtgttatcac cgatatgtgt ctaacctgat tcgggccttc gatacgctaa 60

gatccaccgg 70

<210> 73
<211> 260
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<213> Artificial Sequence

<220>
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ctggaaaact gataacacaa tgaaattctt ccactgtgct taaaaaaacc ctcttgaatt 180
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aactcattat caaatcacgc 260

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<210> 75
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<213> Artificial Sequence

<220>
<223> Oligonucleotide

<400> 75
actcagtgtg attccacctt ctc 23

<210> 76
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Oligonucleotide

<400> 76
gacctctgca gacttcactt ctaatgatga ttatgg 36

<210> 77
<211> 33
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<400> 77
ctaggatccc gttcttttgt tcttcactat taa 33

<210> 78
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<223> Oligonucleotide primer

<400> 78
ctagggttac cgaagtaaaa ccatacttat tag 33

<210> 79
<211> 35
<212> DNA
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<220>
<223> Oligonucleotide primer

<400> 79
gcatggttac cctgcagggg ctgctgctgt tgctg 35

<210> 80
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Oligonucleotide primer

<400> 80
ctgaaagctt gttaaccagc tcaccatggt ggggcag 37

<210> 81
<211> 23
<212> DNA
<213> Artificial Sequence

<220>

<223> Binding domain of PTM molecule

<400> 81
acccatcatt attaggtcat tat 23

<210> 82
<211> 22
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<213> Artificial Sequence

<220>
<223> Oligonucleotide primer

<400> 82
gatcaaatct gtcgatcctt cc 22

<210> 83
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ctgatccacc cagtcccatt a 21

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<220>
<223> Oligonucleotide primer

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gactgatcca cccagtccca ga 22

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<400> 85
ccgcggnnnn nnnnnnnnnn nnnnnnnnnn gggttccggt accggcggct tc 52

<210> 86
<211> 71
<212> DNA
<213> Artificial Sequence

<220>
<223> Oligonucleotide

<400> 86
ttttatcccc gtttacaggg cggcttcgtc tgggactggg tggatcagtc gctgattaaa 60
tatgatgaaa a 71

<210> 87
<211> 66
<212> DNA
<213> Artificial Sequence

<220>
<223> Oligonucleotide

<400> 87
tttggcgata cgccgaacga tcgccagttc tgtatgaacg gtctggtctt tgccgaccgc 60
acgccg 66

<210> 88
<211> 192
<212> DNA
<213> Artificial Sequence

<220>
<223> PTM sequences

<400> 88
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tccggccgca tcagcttttg cagccaattc agttggatca tgcccggtac catcaaggag 120
aacataatct tcggcgtcag ttacgacgag taccgctatc gctcggtgat taaggcctgt 180
cagttggagg ag 192

<210> 89
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Oligonucleotide

<400> 89

gagcaggcaa gacgagcttg ctcat 25

<210> 90
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Oligonucleotide

<400> 90
gagaacataa tcttcggcgt cagttacg 28

<210> 91
<211> 30
<212> DNA
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<220>
<223> Oligonucleotide

<400> 91
gtcagttgga ggaggacatc tccaagtttg 30

<210> 92
<211> 192
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<220>
<223> Oligonucleotide

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tccggccgca tcagcttttg cagccaattc agttggatca tgcccggtac catcaaggag 120
aacataatct tcggcgtcag ttacgacgag taccgctatc gctcggtgat taaggcctgt 180
cagttggagg ag 192

<210> 93
<211> 27
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<213> Artificial Sequence

<220>
<223> PTM sequences

<400> 93
aaatatcatt ggtgtttctt atgatga 27

<210> 94

<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Oligonucleotide

<400> 94
ccaactagaa gaggacatct ccaagtttgc 30

<210> 95
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Oligonucleotide

<400> 95
atgatcatgg gcgagttaga accaagtgag 30

<210> 96
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<212> DNA
<213> Artificial Sequence

<220>
<223> Oligonucleotide

<400> 96
aaaatatcat ctttggtgtt tcctatg 27

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<220>
<223> Oligonucleotide

<400> 97
ccaactagaa gaggacatct ccaagtt 27

<210> 98
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<213> Artificial Sequence

<220>
<223> 5' splice site

<400> 98
cgtttacagg taagtggatc c 21

<210> 99
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> 3' splice site

<400> 99
ctgcagggcg gcttcgtcta ataatgg 27

<210> 100
<211> 47
<212> DNA
<213> Artificial Sequence

<220>
<223> Sequence from trans-splicing domain

<400> 100
tactaactgg tacctcttct ttttttttg atatcctgca gggcggc 47

<210> 101
<211> 1584
<212> DNA
<213> Artificial Sequence

<220>
<223> CFTR PTM

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<210> 102
<211> 323
<212> DNA
<213> Artificial Sequence

<220>
<223> trans-splicing domain of CFTR PTM

<400> 102
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ctgtatctat attcatcatt ggaaacacca atgatatttt ctttaatggt gcctggcata 180
atcctggaaa actgataaca caatgaaatt cttccactgt gcttaatttt accctctgaa 240
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ttaactcatt atcaaatcac gct 323

<210> 103
<211> 165
<212> DNA
<213> Artificial Sequence

<220>
<223> PTM binding domain

<400> 103
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cctaagcaga agtgtatatt cttatttgta aagattctat taactcattt gattcaaaat 120
atttaaaata cttcctgttt cacctactct gctatgcacc cgcgg 165

<210> 104
<211> 225
<212> DNA
<213> Artificial Sequence

<220>
<223> trans-splicing domain of CFTR PTM

<400> 104
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gcagaagtgt atattcttat ttgtaaagat tctattaact catttgattc aaaatattta 120
aaatacttcc tgtttcacct actctgctat gcacccgcgg aacattatta taacgttgct 180
cgaatactaa ctggtacctc ttctttttt tttgatatcc tgcag 225

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<211> 3069
<212> DNA
<213> Artificial Sequence

<220>
<223> CFTR PTM sequence

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aatatcatct ttggtgtttc ctatgatgaa tatagataca gaagcgtcat caaagcatgc 180
caactagaag aggacatctc caagtttgca gagaaagaca atatagttct tggagaaggt 240
ggaatcacac tgagtggagg tcaacgagca agaatttctt tagcaagagc agtatacaaa 300
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gaaatatttg aaagctgtgt ctgtaaactg atggctaaca aaactaggat tttggtcact 420
tctaaaatgg aacatttaaa gaaagctgac aaaatattaa ttttgcatga aggtagcagc 480
tatttttatg ggacattttc agaactccaa aatctacagc cagactttag ctcaaaactc 540
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